

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-19, 66, 68 and 70 are pending in the application, with claim 1 being the independent claim. Claims 1 has been amended to more clearly point out and distinctly claim the subject matter of the present invention. Claim 70 is newly presented. Descriptive support for the amendment is found in the specification as filed. The amendment introduces no new matter and its entry is respectfully requested.

Claims 1-19, 66 and 68 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,256,964 to Drevfors ("Drevfors") in view of U.S. Patent No. 5,860,461 to Helmut ("Helmut").

Based on the above amendment and the following Remarks, the Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and they be withdrawn.

I. Claims 1-19, 66, 68 and 70 are Patentable over Drevfors in view of Helmut

Claims 1-19, 66 and 68 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Drevfors in view of Helmut. For the following reasons, this rejection is respectfully traversed.

Independent claim 1 recites the steps of "filling the inside of [a] package with a sterilizing vapour by configuring [a] membrane to be disposed in [a] second position; holding the sterilizing vapour on the inside of the package for a sufficient amount of time to sterilize the inside of the package by configuring the membrane to be disposed in [a] first position; [and] removing a portion of the sterilizing vapour by configuring the membrane to be disposed in the second position." Drevfors and Helmut, taken alone or in combination, fail to disclose or even fairly suggest this recitation of claim 1.

Drevfors discloses a method for the aseptic handling, filling and sealing of packaging containers. (Col.2, ll.23-27.) However, as admitted by the Examiner, Drevfors does not disclose the use of a membrane fitted over the aperture during filling of the containers.

To cure the deficiency of Drevfors, the Examiner relies on Helmut, alleging that “Helmut discloses the membrane fitted over the filling aperture the membrane being configured to be disposed in a first position in which the membrane is substantially impenetrable to vapour and a second position in which the membrane has been displaced to permit the insertion of an elongated member into the package (figures 5, 6 & 10 and column 2, lines 60-63).” (Office Action at p.3.) As such, the Examiner reasons, “it would have been obvious to one having ordinary skill in the art . . . to have modified Drevfors method by incorporating the method of using the membrane as taught by Helmut to provide a method in which aseptic filling of beverages is possible at an acceptable level of engineering complexity and cost.” (Office Action at p.3.)

As explained by the Examiner, Helmut discloses that a membrane having both open and closed positions may be placed on a bottle to be sterilized and filled with a product. (Col.2, ll.60-63.) More specifically, Helmut discloses that the membrane may be opened by the insertion of a tube 40 into the bottle which may be connected to a sterilization tube 58, a filling tube 59 and an air backflow tube 60. (Figure 12.) During sterilization, “hot or superheated steam” may be “directed towards the opening portion of the connecting tube 40” once the membrane 39 is opened. (Col.8, ll.6-9.) The “steam or gas can [then] escape through the *still open mechanical seal* 39 on the way from the sterilization device to the processing head 52 [emphasis added].” (Col.8, ll.33-35.) Finally, “[t]he beverage is filled into the bottle through the filling tube 59, while gas may escape through the air backflow tube 60.” (Col.8, ll.12-14.)

Helmut does not disclose disposing the membrane in a first position while the bottle is both filled with sterilizing vapour and when the vapour is removed and then disposing the membrane in a second (different) position while the vapour is held inside of the bottle, as recited by claim 1 of the present invention. Rather, Helmut discloses that the mechanical seal 39 remains open during the steps of filling the bottle with sterilizing vapour, releasing the sterilization vapour and filling the bottle with the product. The seal 39 is not closed even once until after the bottle has been sterilized *and* filled and is ready to be capped.

The Examiner argues that “Helmut is relied upon for the teaching of a membrane fitted over the filling aperture the membrane being configured to be disposed in a first position in

which the membrane is substantially impenetrable to vapour and a second position in which the membrane has been displaced to permit the insertion of an elongated member into the package (figures 5, 6, 10 and column 2, lines 60-63).” (Office Action at p.8.) Further, the Examiner points to the disclosure by Helmut that “the mechanical seal may be designed in a self-sealing fashion like a check valve which is opened during filling and then closes automatically.” (Office Action at p.8.). However, the fact that Helmut discloses a seal which may open and close does not meet the recitations of claim 1, as discussed above, or render the claim obvious over Drevfors in view of Helmut. While the seal may close automatically after filling in the system disclosed by Helmut, sterilization occurs during filling and, during filling, the seal remains open. Thus, Helmut does not disclose configuring the membrane at multiple positions during sterilization and filling. As such, one of ordinary skill in the art would not be motivated to modify Drevfors with the sealing system/method disclosed by Helmut and arrive at the presently claimed invention.

Because Drevfors and Helmut, taken alone or in combination, each fail to disclose or suggest the claimed apparatus including the steps of “filling the inside of [a] package with a sterilizing vapour by configuring [a] membrane to be disposed in [a] second position; holding the sterilizing vapour on the inside of the package for a sufficient amount of time to sterilize the inside of the package by configuring the membrane to be disposed in [a] first position; [and] removing a portion of the sterilizing vapour by configuring the membrane to be disposed in the second position”, claim 1 is allowable over Drevfors in view of Helmut. Claims 2-19, 66, 68 and 70 depend from claim 1 and are also allowable for at least these reasons. Therefore, the Applicant respectfully requests that the Examiner withdraw the rejection of the claims under 35 U.S.C. § 103(a).

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment is respectfully requested.

Respectfully submitted,


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